

ART 34 24DT

Recht PCT/PTO 18 AUG 2005

10/528275

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PCT/DE03/03067
CAM 8664 PCT

New Patent Claims 1 - 11:

1. Stent for implantation in or around a hollow organ, in particular a self-expanding stent (10, 17) that does not change in length under tensile and/or compressive stress and that has several ring-shaped elastic wall segments (11), with a radial-elastic structure, whereby the wall segments (11) comprise spring devices (14, 15) and are linked with each other via connector devices (12) and the connector devices (12) form at least one continuous longitudinal flange (13, 18) that has at least one component for absorbing a compressive stress in the axial direction or a tensile stress in the longitudinal direction, characterized by the fact that the connector devices (12) have a greater material thickness and/or width than the spring devices (15).
2. Stent according to Claim 1, characterized by the fact that the wall segments (11) have first spring devices (14) and second spring devices (15) arranged in alternate fashion at an angle to each other.
3. Stent according to Claim 2, characterized by the fact that the first spring devices (14, 15) are more or less rectilinear.
4. Stent according to Claim 2 or 3, characterized by the fact that the connector devices (12) link either only

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first spring devices (14) or only second spring devices (15) to each other.

5. Stent according to one of the previous Claims, characterized by the fact that several longitudinal flanges (13, 18) parallel to each other in a projection onto the external circumferential area are arranged in the direction of the periphery at certain distances from each other.
6. Stent according to one of the previous Claims, characterized by the fact that the longitudinal flange (13) has a helical design.
7. Stent according to one of the previous Claims, characterized by the fact that the connector devices (12) are twice as wide as the spring devices (14, 15).
8. Stent according to one of the previous Claims, characterized by the fact that it is executed in one piece.
9. Stent according to one of the previous Claims, characterized by the fact that it is made of a shape memory material, in particular Nitinol.
10. Stent according to one of the previous Claims, characterized by the fact that it is made of stainless steel, plastic or a self-dissolving material.
11. Stent according to one of the previous Claims, characterized by the fact that its surface has been machined, in particular refined, smoothed and/or polished.